

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Proposed

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: Commonwealth Aluminum Lewisport, LLC
Mailing Address: P.O. Box 480
Lewisport, KY 42351-0480

Source Name: Same as above
Mailing Address: Same as above

Source Location: 1372 State Route 1957
Lewisport, KY 42351

Permit Number: V-03-049 (Revision 1)
Source A. I. #: 1622
Activity #: APE20060003
Review Type: Title V/Operating/PSD/Synthetic Minor
Source ID #: 21-091-00010

Regional Office: Owensboro Regional Office
3032 Alvey Park Drive W., Suite 700
Owensboro, KY 42303-2191
(270) 687-7304

County: Hancock

**Application
Complete Date:** April 27, 1997 (Original)
August 22, 2006 (Revision 1)

Issuance Date: February 15, 2004 (Original)
Revision Date: October 27, 2006
Expiration Date: February 15, 2009



**John S. Lyons, Director
Division for Air Quality**

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Rev #	Permit type	Log # APE#	Complete Date	Issuance Date	Summary of Action
----	Initial Issuance	50143 (F139)	4/27/97	2/15/04	Initial Issuance
1	Major Revision	20060003	8/22/06		Major Revision, Construction and Operation of a new #651 Tension leveler. Details in SOB

SECTION A – PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and received a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

GROUP REQUIREMENTS: South Casthouse Emission Points - Group 1

01(SCH-1) Remelt Furnace #1

Description: Processing rate of 12.0 tons per hour or 105,120 tons per year.

Control Equipment: None

Construction Commenced: March 1, 1965

02(SCH-2) Melt Furnace #2 and Holding Furnace #1

Description: The melt furnace has a processing rate of 12.0 tons per hour or 105,120 tons per year. The holding furnace has a processing rate of 14.0 tons per hour or 122,640 tons per year. The total rated capacity is 52 mmBTU per hour.

Control Equipment: None

Construction Commenced: March 1, 1965

03(SCH-3) Melt Furnace #3 and Holding Furnace #2

Description: The melting furnace has a processing rate of 12.0 tons per hour or 105,120 tons per year. The holding furnace has a processing rate of 14.0 tons per hour or 122,640 tons per year. The total rated capacity is 52 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 1, 1965

04(SCH-4) Melt Furnace #4 and Holding Furnace #3

Description: The melting furnace has a processing rate of 12.0 tons per hour or 105,120 tons per year. The holding furnace has a processing rate of 14.0 tons per hour or 122,640 tons per year. The total rated capacity is 52 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 1, 1965

05(SCH-5) Melt Furnace #5 and Holding Furnace #4

Description: The melting furnace has a processing rate of 12.0 tons per hour or 105,120 tons per year. The holding furnace has a processing rate of 14.0 tons per hour or 122,640 tons per year. The total rated capacity is 52 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 1, 1965

06(SCH-6) Melting Furnace #6

Description: Processing rate of 12.0 tons per hour or 105,120 tons per year with a burner rated capacity of 40 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1978

07(SCH-7) Holding Furnace #5

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

Description: Processing rate of 14.0 tons per hour or 122,640 tons per year with a burner rated capacity of 20 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1978

08(SCH-8) Melting Furnace #7

Description: Processing rate of 12.0 tons per hour or 105,120 tons per year with a burner rated capacity of 40 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1978

09(SCH-9) Holding Furnace #6

Description: Processing rate of 14.0 tons per hour or 122,640 tons per year with a burner rated capacity of 20 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1978

10(SCH-10) Melting Furnace #8

Description: Processing rate of 12.0 tons per hour or 105,120 tons per year with a burner rated capacity of 40 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1979

11(SCH-11) Holding Furnace #7

Description: Processing rate of 14.0 tons per hour or 122,640 tons per year with a burner rated capacity of 20 mmBTU per hour.

Control Equipment: None

Construction Commenced: June 15, 1979

25(SCH-12) Dross Cooler

Description: Processing rate of 11.25 tons per hour or 62,900 tons per year.

Control Equipment: Baghouse

Construction Commenced: January 31, 1991

APPLICABLE REGULATIONS:

401 KAR 59:010 New process operations commenced on or after July 2, 1975

401 KAR 61:020 Existing process operations commenced before July 2, 1975

401 KAR 63:002 40 CFR Part 63 national emission standards for hazardous air pollutants incorporating 40 CFR 63.1500 to 63.1519 (Subpart RRR), “National Emissions Standards for Hazardous Air Pollutants for Secondary Aluminum Production”

401 KAR 63:010 Fugitive emissions

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

- a. Pursuant to 40 CFR 63 Subpart RRR:
 - i. The permittee shall prepare, implement and maintain an operation, maintenance, and monitoring plan.
 - ii. Equipment shall be labeled with the appropriate information as required by 63.1506(b).
- b. Pursuant to 40 CFR 63 Subpart RRR, for all furnaces listed above:
 - i. The reactive flux injection rate shall be maintained at or below the rate used during the performance test for each operating cycle or time period used in the performance test.
 - ii. Each furnace shall be operated within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
 - iii. The permittee shall install a measuring device for weighing the feed/charge and one for the reactive flux system in accordance with 63.1510(e) and (j). These devices shall be calibrated according to manufacturers specifications, or at least every 6 months.
- c. Pursuant to 40 CFR 63 Subpart RRR, for each Group 1 furnace listed above, the permittee shall establish a scrap inspection program in accordance with 63.1510(p).
- d. Pursuant to 40 CFR 63 Subpart RRR, for each rotary dross cooler listed above:
 - i. The permittee shall install and operate a bag leak detection system in accordance with 63.1510(f).
 - ii. The fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a six-month block reporting period.
- e. Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

- b. Pursuant to 401 KAR 61:020, for equipment constructed before July 2, 1975:
 - i. Visible emissions shall not equal or exceed 40 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60, averaged over three hours or the minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 4.10 P^{0.67}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.58 lbs/hr.

- c. Pursuant to 40 CFR 63 Subpart RRR, for each Group 1 furnace listed above:
 - i. Particulate matter emissions shall not exceed 0.40 lb per ton of feed/charge;
 - ii. HCl emissions shall not exceed 0.40 lb/ton of feed/charge;
 - iii. Dioxin/furan emissions shall not exceed 0.00021 grain of D/F TEQ per ton of feed/charge (15µg per mg).
- d. Pursuant to 40 CFR 63 Subpart RRR, for each rotary dross cooler listed above, particulate emissions shall not exceed 0.04 gr per dscf.

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 59:010 and 61:020, to provide reasonable assurance that the particulate matter emission limitations are being met (if compliance is not demonstrated with 40 CFR 63 Subpart RRR), the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Pursuant to 40 CFR 63 Subpart RRR, Compliance with the PM, HCl, and D/F emissions shall be demonstrated using the following equation:

$$E = \frac{CxQxK1}{P}$$

Where, E is the emission rate of PM, HCl, or D/F, (lb/ton) of feed, C is the concentration of PM, HCl, or D/F, gr/dscf, Q is the volumetric flow rate of exhaust gases, dscf/hr, K1 is the conversion factor, 1 lb / 7,000 gr and P is the production rate (ton/hr).

- 3) Compliance with the more stringent 40 CFR 63 Subpart RRR limitations ensures compliance with all other associated limits.

3. **Testing Requirements:** Pursuant to 40 CFR 63 Subpart RRR, the permittee shall test for PM, HCL and D/F at least once during the permit life as appropriate for each listed unit or for a representative unit as allowed under 40 CFR 63.1511(f).

4. **Specific Monitoring Requirements:**

- a. Pursuant to 401 KAR 59:010 and 61:020, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:
- i. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
 - ii. Perform observation of visual emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - 1) Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - 2) All emission points from which visible emissions occurred.
 - iii. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
- b. Pursuant to 40 CFR 63 Subpart RRR, the permittee shall:
- i. Record the weight of each feed/charge using a measuring device or other procedure with accuracy of +/- 1%.
 - ii. Check labels monthly to confirm that they are intact and legible.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii. Set and maintain the chlorine flow delivery system throughout the fluxing period at or below the rate established during the performance test.
- iv. Calculate using equation 5 in 63.1512(o) and record the total reactive flux injection rate for each operating cycle or time period used in the performance test.
- v. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan for the rotary dross cooler baghouse.

5. Specific Recordkeeping Requirements: Records shall be maintained in accordance with 40 CFR 63 Subpart RRR 63.1517. Records shall also be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit, the amount and type of reactive flux added, and the hours of operation.

6. Specific Reporting Requirements:

- a. The permittee shall submit reports in accordance with 40 CFR 63 Subpart RRR 63.1516.
- b. Any exceedances over the opacity, particulate, HCl, or D/F emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
- c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
- d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.

7. Specific Control Equipment Operating Conditions: For the rotary dross cooler baghouse, see Operating Limitations.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: South Casthouse Emission Points - Group 2

AB(SCH-12)

Dross Loadout

Description: Loadout rate of 4.0 tons per hour or 62,900 tons per year.

Control Equipment: Baghouse

Construction Commenced: August 31, 1992

99(SCH-12)

Dross Cooling Pad

Description: Processing rate of 4.0 tons per hour or 25,016 tons per year.

Control Equipment: Baghouse

Construction Commenced: August 31, 1992.

APPLICABLE REGULATIONS:

401 KAR 51:017 Prevention of significant deterioration of air quality.

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

401 KAR 63:010 Fugitive emissions.

1. Operating Limitations:

- a. The dross loadout facility entrance and exit doors shall be closed during loading operations and all other times when practical.
- b. The dross loadout facility shall not operate simultaneously with the South Casthouse cooling pad.
- c. Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Particulate emissions shall not exceed the following self-imposed limits:

- i. AB(SCH-12): 2.57 pounds per hour and 1.69 tons per year.
- ii. 99(SCH-12): 2.57 pounds per hour and 1.69 tons per year

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 51:017, to provide reasonable assurance that the self-imposed particulate matter emission limitations are being met, the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Compliance with the self-imposed limits ensures compliance with the less stringent limit imposed by 401 KAR 59:010.

3. Testing Requirements: None

4. Specific Monitoring Requirements: Pursuant to 401 KAR 59:010, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:

- a. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
- b. Perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - i. Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - ii. All emission points from which visible emissions occurred.
- c. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

5. **Specific Recordkeeping Requirements:** Records shall be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit, and the hours of operation.

6. **Specific Reporting Requirements:**

- a. The permittee shall report semi-annually the **Specific Monitoring Requirements**.
- b. Any exceedances over the opacity or particulate emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
- c. Following an exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
- d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.

7. **Specific Control Equipment Operating Conditions:** None

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

GROUP REQUIREMENTS: North Casthouse

- 22 (NCH-1) W-1 Melt Furnace**
Description: Reverberatory melting furnace with a processing rate of 9.0 tons per hour or 78,840 tons per year. The burner capacity is 36 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- 12 (NCH-2) W-6 Melt Furnace**
Description: The reverberatory melting furnace has a processing rate of 6.4 tons per hour or 56,064 tons per year with a burner rated capacity of 22 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- 14 (NCH-3) W-5 Melt Furnace**
Description: The reverberatory melting furnace has a processing rate of 5.0 tons per hour or 43,800 tons per year with a burner rated capacity of 24 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- 15 (NCH-4) C-4 Hold Furnace**
Description: The holding furnace has a processing rate of 10 tons per hour or 87,600 tons per year with a burner rated capacity of 18 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- 16 (NCH-5) C-3 Hold Furnace**
Description: The holding furnace has a processing rate of 10 tons per hour or 87,600 tons per year with a rated burner capacity of 18 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- 17 (NCH-6) C-2 Hold Furnace**
Description: The holding furnace has a processing rate of 10 tons per hour or 87,600 tons per year with a rated burner capacity of 18 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

- 18 (NCH-7) C-1 Hold Furnace**
Description: The holding furnace has a processing rate of 10 tons per hour or 87,600 tons per year with a rated burner capacity of 18 mmBTU per hour.
Control Equipment: None
Construction Commenced: November 15, 1979
- A4 (NCH-8A) W-2 Furnace Well**
Description: The reverberatory melting furnace external charge well has a processing rate of 9.0 tons per hour or 78,840 tons per year
Control Equipment: Lime-Injected Baghouse
Construction Commenced: August 11, 1999
- 23 (NCH-9) North Casthouse degassing and fluxing units (Located at Holding Furnaces C1, C2, C3 and C4)**
Description: The four degas/flux units have a combined processing rate of 41 tons per hour or 240,444 tons per year
Control Equipment: Lime-Injected Baghouse
Construction Commenced: November 15, 1979
- 24 (NCH-8) North Casthouse rotary dross cooler**
Description: The rotary dross cooler has a processing rate of 2.89 tons per hour or 18,000 tons per year.
Control Equipment: Baghouse
Construction Commenced: November 15, 1979
- A3 (NCH-10) W-2 Melt Furnace Burner Section**
Description: Reverberatory melting furnace with a processing rate of 9.0 tons per hour or 33, 000 tons per year of non-painted aluminum/salt charge and 4,000 tons per year of SOW charge. The rated capacity of each of two Bloom Regenerative-Burners is 18.5 MMBtu/hr.
Control Equipment: None
Construction Commenced: April 4, 2006

APPLICABLE REGULATIONS:

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

401 KAR 63:002 40 CFR Part 63 national emission standards for hazardous air pollutants incorporating 40 CFR 63.1500 to 63.1519 (Subpart RRR), “National Emissions Standards for Hazardous Air Pollutants for Secondary Aluminum Production.”

401 KAR 63:010 Fugitive emissions.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

- a. Pursuant to 40 CFR 63 Subpart RRR:
 - i. The permittee shall prepare, implement and maintain an operation, maintenance, and monitoring plan.
 - ii. Equipment shall be labeled with the appropriate information as required by 63.1506(b).
- b. Pursuant to 40 CFR 63 Subpart RRR, for all furnaces listed above:
 - i. The reactive flux injection rate shall be maintained at or below the rate used during the performance test for each operating cycle or time period used in the performance test.
 - ii. Each furnace shall be operated within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
 - iii. The permittee shall install a measuring device for weighing the feed/charge and one for the reactive flux system in accordance with 63.1510(e) and (j). These devices shall be calibrated according to manufacturers specifications, or at least every 6 months.
- c. Pursuant to 40 CFR 63 Subpart RRR, for each Group 1 furnace listed above, the permittee shall establish a scrap inspection program in accordance with 63.1510(p).
- d. Pursuant to 40 CFR 63 Subpart RRR, for the W-2 furnace baghouse, the degassing/fluxing units baghouses, and the dross cooler baghouse:
 - i. The permittee shall install and operate a bag leak detection system in accordance with 63.1510(f).
 - ii. The fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a six-month block reporting period.
- e. Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

- b. Pursuant to 40 CFR 63 Subpart RRR, for each Group 1 furnace listed above:
 - i. Particulate matter emissions shall not exceed 0.40 lb per ton of feed/charge;
 - ii. HCl emissions shall not exceed 0.40 lb/ton of feed/charge;
 - iii. Dioxin/furan emissions shall not exceed 0.00021 grain of D/F TEQ per ton of feed/charge (15µg per mg).
- c. Pursuant to 40 CFR 63 Subpart RRR, for each rotary dross cooler listed above, particulate emissions shall not exceed 0.04 gr per dscf.
- d. Pursuant to 40 CFR 63 Subpart RRR, for each degassing/fluxing unit:
 - i. Particulate emissions shall not exceed 0.01 lb per ton of feed/charge.
 - ii. HCl emissions shall not exceed 0.04 lb per ton of feed/charge.

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 59:010, to provide reasonable assurance that the particulate matter emission limitations are being met (if compliance is not demonstrated with 40 CFR 63 Subpart RRR), the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Pursuant to 40 CFR 63 Subpart RRR, Compliance with the PM, HCl, and D/F emissions shall be demonstrated using the following equation:

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$E = \frac{CxQxK1}{P}$$

Where, E is the emission rate of PM, HCl, or D/F, (lb/ton) of feed, C is the concentration of PM, HCl, or D/F, gr/dscf, Q is the volumetric flow rate of exhaust gases, dscf/hr, K1 is the conversion factor, 1 lb / 7,000 gr and P is the production rate (ton/hr).

- 3) Compliance with the more stringent 40 CFR 63 Subpart RRR limitations ensures compliance with all other associated limits.

3. **Testing Requirements:** Pursuant to 40 CFR 63 Subpart RRR, the permittee shall test for PM, HCL and D/F at least once during the permit life as appropriate for each listed unit or for a representative unit as allowed under 40 CFR 63.1511(f).

4. **Specific Monitoring Requirements:**

- a. Pursuant to 401 KAR 59:010, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:
- i. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
 - ii. Perform observation of visual emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - 1) Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - 2) All emission points from which visible emissions occurred.
 - iii. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
- b. Pursuant to 40 CFR 63 Subpart RRR, the permittee shall:
- i. Record the weight of each feed/charge using a measuring device or other procedure with accuracy of +/- 1%.
 - ii. Check labels monthly to confirm that they are intact and legible.
 - iii. Set and maintain the chlorine flow delivery system throughout the fluxing period at or below the rate established during the performance test.
 - iv. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan for the rotary dross cooler baghouse.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- v. Maintain the 3-hour block average inlet temperature for each lime injected baghouse at or below the average temperature established during the performance test, plus 25 degrees Fahrenheit.
- vi. Maintain free flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

5. **Specific Recordkeeping Requirements:** Records shall be maintained in accordance with 40 CFR 63 Subpart RRR 63.1517. Records shall also be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit, the amount and type of reactive flux added and the hours of operation.

6. **Specific Reporting Requirements:**

- a. The permittee shall submit reports in accordance with 40 CFR 63 Subpart RRR 63.1516.
- b. Any exceedances over the opacity, particulate, HCl, or D/F emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
- c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
- d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements

7. **Specific Control Equipment Operating Conditions:** None

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Scrap Metal Prep

19(SMP-1) Scarp Metal Prep: SMP-1 Common stack serving SMP-1A thru 1D

SMP-1A Primary Hammermill Shredder

Processing rate of 18 tons per hour or 136,000 tons per year for all types of scrap.

Primary Control Equipment: Cyclone

Secondary Control Equipment: Baghouse

Construction Commenced: July 6, 1979

SMP-1B Secondary Shredder with Eddy Current Separator

Processing rate of 94,500 tons per year.

Control Equipment: Baghouse

Construction Commenced: August 11, 1999

SMP-1C Combustion Engineering Dryer/Delacquer A Kiln

Processing rate of 9 tons per hour or 70,080 tons per year for all types of scrap.

Primary Control Equipment: Cyclone

Secondary Control Equipment: Afterburner

Tertiary Control Equipment: Reagent Injection System with Baghouse

Painted Scrap Control: Screening System

Construction Commenced: July 6, 1979

SMP-1D Combustion Engineering Dryer/Delacquer B Kiln

Processing rate of 9 tons per hour or 70,080 tons per year for all types of scrap.

Primary Control Equipment: Cyclone

Secondary Control Equipment: Afterburner

Tertiary Control Equipment: Reagent Injection System with Baghouse

Painted Scrap Control: Screening System

Construction Commenced: July 6, 1979

APPLICABLE REGULATIONS:

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

401 KAR 63:002 40 CFR Part 63 national emission standards for hazardous air pollutants incorporating 40 CFR 63.1500 to 63.1519 (Subpart RRR), “National Emissions Standards for Hazardous Air Pollutants for Secondary Aluminum Production.”

401 KAR 63:010 Fugitive emissions.

1. Operating Limitations:

- a. Pursuant to 40 CFR 63 Subpart RRR:

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. The permittee shall prepare, implement and maintain an operation, maintenance, and monitoring plan.
 - ii. Equipment shall be labeled with the appropriate information as required by 63.1506(b).
- b. Pursuant to 40 CFR 63 Subpart RRR, the permittee shall install a measuring device for weighing the feed/charge in accordance with 63.1510(e). These devices shall be calibrated according to manufacturers specifications, or at least every 6 months.
- c. Pursuant to 40 CFR 63 Subpart RRR, for each Group 1 furnace listed above, the permittee shall establish a scrap inspection program in accordance with 63.1510(p).
- d. Pursuant to 40 CFR 63 Subpart RRR, for the baghouses listed above:
 - i. The permittee shall install and operate a bag leak detection system in accordance with 63.1510(f).
 - ii. The fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a six-month block reporting period.
- e. Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

- b. Pursuant to 40 CFR 63 Subpart RRR, for each shredder listed above, particulate matter emissions shall not exceed 0.01 grain per dry standard cubic foot.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Pursuant to 40 CFR 63 Subpart RRR, for each delacquering kiln listed above:
- Particulate matter emissions shall not exceed 0.3 lb per ton of feed/charge.
 - HCl emissions shall not exceed 1.5 lb/ton of feed/charge
 - Dioxin/furan emissions shall not exceed 0.00007 grain of D/F TEQ per ton of feed/charge (5µg per mg).
 - THC emissions shall not exceed 0.2 lb per ton of feed/charge.

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 59:010, to provide reasonable assurance that the particulate matter emission limitations are being met (if compliance is not demonstrated with 40 CFR 63 Subpart RRR), the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Pursuant to 40 CFR 63 Subpart RRR, compliance with the PM, HCl, and D/F emissions shall be demonstrated using the following equation:

$$E = \frac{CxQxK1}{P}$$

Where, E is the emission rate of PM, HCl, or D/F, (lb/ton) of feed, C is the concentration of PM, HCl, or D/F, gr/dscf, Q is the volumetric flow rate of exhaust gases, dscf/hr, K1 is the conversion factor, 1 lb / 7,000 gr and P is the production rate (ton/hr).

- 3) Compliance with the more stringent 40 CFR 63 Subpart RRR limitations ensures compliance with all other associated limits.

- 3. Testing Requirements:** Pursuant to 40 CFR 63 Subpart RRR, the permittee shall test for PM, HCL and D/F at least once during the permit life as appropriate for each listed unit or for a representative unit as allowed under 40 CFR 63.1511(f).

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 59:010, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:
 - i. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
 - ii. Perform observation of visual emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - 1) Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - 2) All emission points from which visible emissions occurred.
 - iii. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
- b. Pursuant to 40 CFR 63 Subpart RRR, the permittee shall:
 - i. Record the weight of each feed/charge using a measuring device or other procedure with accuracy of +/- 1%.
 - ii. Check labels monthly to confirm that they are intact and legible.
 - iii. Set and maintain the feed rates at or below the rate established during the performance test.
 - iv. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.
 - v. Maintain the 3-hour block average inlet temperature for each lime injected baghouse at or below the average temperature established during the performance test, plus 25 degrees Fahrenheit.
 - vi. Maintain free flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.
 - vii. Maintain the afterburner at 1400 degrees Fahrenheit or higher.

- 5. Specific Recordkeeping Requirements:** Records shall be maintained in accordance with 40 CFR 63 Subpart RRR 63.1517. Records shall also be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit and the hours of operation.

6. Specific Reporting Requirements:

- a. The permittee shall submit reports in accordance with 40 CFR 63 Subpart RRR 63.1516.

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

- b. Any exceedances over the opacity, particulate, HCl, or D/F emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
 - c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
 - d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.
7. **Specific Control Equipment Operating Conditions:** The baghouses and afterburner shall be maintained in accordance with 40 CFR 63, Subpart RRR

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

GROUP REQUIREMENTS: Hot Rolling – Group 1

30(HR-1&2) Ingersoll #20747 Ingot Scalper

Description: Processing rate of 178.5 tons per hour or 666,444.2 tons per year.

Control Equipment: Cyclones

Construction Commenced: December 15, 1965, November 30, 1991

30(SCH-18) Steelcraft Pneumatic Conveyor

Description: Processing rate of 4.4 tons per hour or 11,171.4 tons per year.

Control Equipment: None

Construction Commenced: May 31, 1994

31(HR-3) Homogenization Soaking Pits #1 and #2

Description: This point has a processing rate of 28.1 tons per hour. The total rated capacity is 29.8 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

32(HR-4) Homogenization Soaking Pits #3 and #4

Description: This point has a processing rate of 28.1 tons per hour. The total rated capacity is 29.8 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

33(HR-7) Homogenization Soaking Pit #7

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 14.9 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

34(HR-8) Homogenization Soaking Pit #8

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 14.9 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

35(HR-9) Homogenization Soaking Pit #9

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 14.9 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

36(HR-10) Homogenization Soaking Pit #10

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 14.9 mmBTU per hour.

Control Equipment: None

Construction Commenced: December 15, 1965

37(HR-5) Homogenization Soaking Pit #5

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 16.2 mmBTU per hour.

Control Equipment: None

Construction Commenced: November 15, 1972

38(HR-6) Homogenization Soaking Pit #6

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 16.2 mmBTU per hour.

Control Equipment: None

Construction Commenced: November 15, 1972.

39(HR-11) Homogenization Soaking Pit #11

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 32 mmBTU per hour.

Control Equipment: None

Construction Commenced: November 15, 1972

40(HR-12) Homogenization Soaking Pit #12

Description: This point has a processing rate of 16.2 tons per hour. The total rated capacity is 32 mmBTU per hour.

Control Equipment: None

Construction Commenced: November 15, 1972

41(HR-13) East Sunbeam C-204-79 Tunnel Furnace

Description: This point has a processing rate of 40.3 tons per hour and has a rated capacity of 26 mmBTU per hour.

Control Equipment: None

Construction Commenced: October 31, 1977

42(HR-14) West Sunbeam C-204-79 Tunnel Furnace

Description: This point has a processing rate of 40.3 tons per hour and has a rated capacity of 26 mmBTU per hour.

Control Equipment: None

Construction Commenced: October 31, 1977

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

97 (HR-15) 573 Reversing Mill

Description: This point has a processing rate of 118.0 tons per hour and 600,000 tons per year.

Control Equipment: Rotoclone Scrubber

Construction Commenced: December 15, 1965

96(HR-16) 3-Stand Hot Aluminum Rolling Mill

Description: This point has a processing rate of 112 tons per hour or 600,000 tons per year.

Control Equipment: Rotoclone scrubber.

Construction Commenced: December 15, 1965

APPLICABLE REGULATIONS:

401 KAR 51:017 Prevention of significant deterioration of air quality.

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

401 KAR 61:020 Existing process operations commenced before July 2, 1975.

401 KAR 63:010 Fugitive emissions.

1. **Operating Limitations:** Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne

2. **Emission Limitations:**

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

- b. Pursuant to 401 KAR 61:020, for equipment constructed before July 2, 1975:
 - i. Visible emissions shall not equal or exceed 40 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60, averaged over three hours or the

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 4.10 P^{0.67}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.58 lbs/hr.

- c. For emission point 30(HR-1, HR-2, SCH-18), the particulate emissions shall not exceed 11.5 pounds per hour or 17.9 tons per year (Self-Imposed).

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 51:017, to provide reasonable assurance that the self-imposed particulate matter emission limitations are being met, the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Compliance with the self-imposed limits ensures compliance with the less stringent limits imposed by 401 KAR 59:010 and 61:020.

3. Testing Requirements: None

4. Specific Monitoring Requirements: Pursuant to 401 KAR 59:010 and 61:020, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:

- a. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - i. Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - ii. All emission points from which visible emissions occurred.
 - c. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
- 5. **Specific Recordkeeping Requirements:** Records shall be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit, and the hours of operation.
- 6. **Specific Reporting Requirements:**
 - a. The permittee shall report semi-annually the **Specific Monitoring Requirements**.
 - b. Any exceedances over the opacity or particulate emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
 - c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
 - d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.
- 7. **Specific Control Equipment Operating Conditions:** None

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS:

Hot Rolling – Group 2

A2(HR-18) Oil House Boiler #2

Description: This point has a rated capacity of 25.1 mmBTU per hour. It is fired with natural gas only.

Control Equipment: None

Construction Commenced: December 15, 1992

Coil Coating – Group 1

65(CC-2-7) Burners #1-6 for Caustic Cleaning Line (for 656 Paint Line)

Description: These points have a rated capacity as follows: CC-2 thru 5: 13.6 mmBTU/hr combined, CC-6: 2.6 mmBTU/hr and CC-7: 2.7 mmBTU/hr. They are fired by natural gas only.

Control Equipment: None

Construction Commenced: December 31, 1991

APPLICABLE REGULATIONS:

401 KAR 59:015 New indirect fired heat exchangers, applicable to an emissions unit with a rated capacity less than 250 mmBTU/hr which commenced on or after April 9, 1972.

401 KAR 60:005 40 CFR 60, Subpart Dc, standards of performance for small industrial-commercial-institutional steam generating units, for units less than or equal to 100 MMBTU/hour but greater than or equal to 10 MMBTU/hour commenced after June 9, 1989.

1. Operating Limitations: None

2. Emission Limitations:

- a. Pursuant to Regulation 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.308 lb/mmBTU.
- b. Pursuant to Regulation 401 KAR 59:015, Section 4(2), and 40 CFR 60.42c, visible emissions shall not exceed 20% opacity based on a six minute average, except for one six minute period per hour of not more than 27% opacity.

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

- c. Pursuant to Regulation 401 KAR 59:015 and 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, sulfur dioxide emissions shall not exceed 1.05869 lb/mmBTU
 - d. This unit is considered to be in compliance with the SO₂, particulate, and opacity standards while burning natural gas.
- 3. **Testing Requirements:** None
- 4. **Specific Monitoring Requirements:**
 - a. The permittee shall monitor the natural gas usage on a daily basis.
 - b. The permittee may use the fuel supplier certificate to meet the sulfur dioxide emission monitoring requirements specified in 40 CFR 60, Subpart Dc.
- 5. **Specific Recordkeeping Requirements:** Records of the amount of natural gas burned shall be maintained on a daily basis and on 12-month rolling total.
- 6. **Specific Reporting Requirements:** See Section F
- 7. **Specific Control Equipment Operating Conditions:** None

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Hot Rolling – Group 3

71(HR-17) Oil House Boiler #1

Description: This point has a rated capacity of 21 mmBTU per hour. It is fired by natural gas only.

Control Equipment: None

Construction Commenced: December 15, 1965

APPLICABLE REGULATIONS:

401 KAR 61:015 Existing indirect fired heat exchangers, applicable to an emissions unit with a rated capacity less than 250 mmBTU/hr which commenced before April 9, 1972.

1. **Operating Limitations:** None
2. **Emission Limitations:** The permittee shall not cause to be discharged into the atmosphere from that affected facility:
 - a. Particulate emissions in excess of 0.470 pounds per million BTU actual heat input, averaged over three hours.
 - b. Emissions that exhibit greater than twenty (20) percent opacity in regions classified as Priority I with respect to particulate matter.
 - c. Sulfur dioxide in excess of 3.19 pounds per million BTU actual heat input. Averaged over twenty-four hours

Compliance Demonstrations: These units shall be deemed to be in compliance with all the above limits while burning natural gas.
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** The permittee shall measure the rate of fuel burned daily.
5. **Specific Recordkeeping Requirements:** The permittee shall record the amount of gas burned daily.
6. **Specific Reporting Requirements:** See Section F
7. **Specific Control Equipment Operating Conditions:** See Section E

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

GROUP REQUIREMENTS: Cold Rolling

44 (CR-1) 588 2 Stand Cold Rolling Mill

Description: Rated for processing 150.0 tons per hour and 405,600 tons per year of aluminum coils

Control Equipment: None

Construction Commenced: December 15, 1965

45 (CR-2) 589 Single Stand Cold Rolling Mill

Description: Rated for processing 150.0 tons per hour and 405,600 tons per year of aluminum coils

Control Equipment: None

Construction Commenced: December 15, 1965

46 (CR-3) 590 Single Stand Cold Rolling Mill

Description: Rated for processing 150.0 tons per hour and 405,600 tons per year.

Control Equipment: None

Construction Commenced: March 31, 1979

APPLICABLE REGULATIONS:

401 KAR 51:017 Prevention of significant deterioration of air quality.

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

401 KAR 61:020 Existing process operations commenced before July 2, 1975.

401 KAR 63:010 Fugitive emissions.

1. **Operating Limitations:** Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. **Emission Limitations:**

- a. Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - i. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

- b. Pursuant to 401 KAR 61:020, for equipment constructed before July 2, 1975:
 - i. Visible emissions shall not equal or exceed 40 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.
 - ii. Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60, averaged over three hours or the minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 4.10 P^{0.67}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.58 lbs/hr.

- a. Particulate emissions shall not exceed the following self-imposed limits:
 - i. Emission point 44: 5.0 pounds per hour and 20.0 tons per year.
 - ii. Emission point 45: 5.0 pounds per hour and 20.0 tons per year.
 - iii. Emission point 46: 8.0 pounds per hour and 32.0 tons per year.

Compliance Demonstrations: The permittee shall demonstrate compliance with the emission standards listed above as follows:

- 1) Pursuant to 401 KAR 51:017, to provide reasonable assurance that the self-imposed particulate matter emission limitations are being met, the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

- 2) Compliance with the self-imposed limits ensures compliance with the less stringent limit imposed by 401 KAR 59:010 and 61:020.

3. Testing Requirements: None

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. **Specific Monitoring Requirements:** Pursuant to 401 KAR 59:010 and 61:020, to provide reasonable assurance that the visible emission limitations are being met the permittee shall:
 - a. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
 - b. Perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - i. Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - ii. All emission points from which visible emissions occurred.
 - c. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
5. **Specific Recordkeeping Requirements:** Records shall be maintained of the visual observations, annual Reference Method 9 tests, and the amount of process weight added to each emissions unit, and the hours of operation.
6. **Specific Reporting Requirements:**
 - a. The permittee shall report semi-annually the **Specific Monitoring Requirements**.
 - b. Any exceedances over the opacity or particulate emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.
 - c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
 - d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.
7. **Specific Control Equipment Operating Conditions:** None

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)****GROUP REQUIREMENTS: Annealing**

- 47 (A-1-3) **Anneal Furnaces 1, 2, 3 Chamber atmosphere emissions**
52 (A-2) **Anneal Furnace 1, 2 gas combustion: 24 mmBTU/hr**
53(A-3) **Anneal Furnace 3 gas combustion: 12 mmBTU/hr**
 Construction Commenced: December 15, 1965
- 48 (A-4) **Anneal Furnace 4 Chamber atmosphere emissions**
55 (A-20) **Anneal Furnace 4 gas combustion: 12 mmBTU/hr**
 Construction Commenced: December 15, 1965
- 86 (A-13) **Anneal Furnaces 5, 6 Chamber atmosphere emissions**
87 (A-14) **Anneal Furnace 5, 6 gas combustion: 24 mmBTU/hr**
 Construction Commenced: December 15, 1965
- 88 (A-15) **Anneal Furnaces 7, 8 Chamber atmosphere emissions**
89 (A-16) **Anneal Furnace 7, 8 gas combustion: 24 mmBTU/hr**
 Construction Commenced: December 15, 1965
- 90 (A-17) **Anneal Furnace 9 Chamber atmosphere emissions**
91 (A-18) **Anneal Furnace 9 gas combustion: 24 mmBTU/hr**
 Construction Commenced: December 15, 1965
- 49 (A-7) **Anneal Furnace 10 Chamber atmosphere emissions**
56 (A-8) **Anneal Furnace 10 gas combustion: 24 mmBTU/hr**
 Construction Commenced: March 31, 1979
- 50 (A-9) **Anneal Furnace 11 Chamber atmosphere emissions**
57 (A-10) **Anneal Furnace 11 gas combustion: NA**
 Construction Commenced: March 31, 1979
- 51 (A-11) **Anneal Furnace 12 Chamber atmosphere emissions**
58 (A-12) **Anneal Furnace 12 gas combustion: 24 mmBTU/hr**
 Construction Commenced: March 31, 1979
- 48 (A-5) **Anneal Furnace 13 Chamber atmosphere emissions**
48 (A-6) **Anneal Furnace 14 Chamber atmosphere emissions**
54 (A-19) **Anneal Furnace 13, 14 gas combustion: 24 mmBTU/hr**
 Construction Commenced: December 15, 1965

Description: The annealers process several racks of coils from various mills ranging from 103.8 to 207.6 tons in weight. Annealing times vary from 8.71 hours to 23.12 hours depending on the desired temper.

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

Control Equipment : None

APPLICABLE REGULATIONS:

401 KAR 50:055 General compliance requirements.

1. **Operating Limitations:** Furnaces shall only burn natural gas.
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** The permittee shall monitor the amount of natural gas used and the hours of operation.
5. **Specific Recordkeeping Requirements:** Records shall be maintained of the amount of natural gas used and the hours of operation.
6. **Specific Reporting Requirements:** The permittee shall report semi-annually the **Specific Monitoring Requirements.**
7. **Specific Control Equipment Operating Conditions:** None

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**GROUP REQUIREMENTS: Coil Coating – Group 1****66(CC-1) Caustic Cleaning Line (for 656 Paint Line)**

Description: This point has a processing rate of 154.3 pounds per hour or 675.8 tons per year of caustic solution.

Control Equipment: None

Construction Commenced: December 31, 1991

67(CC-8) Acid Etch Infrared Curing Oven

Description: This point has a processing rate of 72.6 pounds per hour or 318 tons per year for chromic acid and 276 gallons per hour of water based coating.

Control Equipment: None

Construction Commenced: December 31, 1991

APPLICABLE REGULATIONS:

401 KAR 59:010 New process operations commenced on or after July 2, 1975.

1. **Operating Limitations:** None
2. **Emission Limitations:** Pursuant to 401 KAR 59:010, for equipment constructed on or after July 2, 1975:
 - a. Visible emissions shall not equal or exceed 20 percent opacity, as determined by using Reference Method 9, Appendix A, 40 CFR 60.
 - b. Hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours shall not exceed the limit calculated by the following formula:

$$E = 3.59 P^{0.62}$$

Where P is the process weight (total weight of all materials introduced into any emission unit which may cause the emissions of particulate matter) in tons/hour. If the process weight for a particular emission point equals or is less than 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hr.

Compliance Demonstrations: Pursuant to 401 KAR 59:010, to provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount and type of process weight added to each emissions unit. The 3-hour average process weight shall be equal to the average hourly tons added to each emission unit averaged over 24 hours. Particulate emissions shall be calculated as follows:

$$PE = PW \times PEF$$

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where PE = particulate emissions in average lbs/hr, PW = process weight in tons/hr, and PEF = particulate emission factor in lbs/ton of process weight. The particulate emission factors shall be the number in the Kentucky emission inventory system or other emission test or emission factors approved by the Division.

3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** To provide reasonable assurance that the visible emission limitations are being met the permittee shall:
 - a. Determine the opacity of emissions during operation from each stack or vent by Reference Method 9 annually, or more frequently if requested by the Division.
 - b. Perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observation. The log shall note:
 - i. Whether any air emissions (except for water vapor) were visible from the vent/stack, and
 - ii. All emission points from which visible emissions occurred.
 - c. Determine the opacity of emissions by Reference Method 9 if qualitative visible emissions from any stack/vent are seen.
5. **Specific Recordkeeping Requirements:** Records shall be maintained of the visual observations, any maintenance performed, and the amount of process weight added to each emissions unit.
6. **Specific Reporting Requirements:** Any exceedances over the opacity or particulate emission limits as stated in this permit shall be reported to the Division as specified in Section F.8. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the daily visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month. The company shall certify to the Division, annually, whether a daily visible emission survey was conducted for this emission point, and whether the emission point was in compliance with the applicable opacity requirements.
 - a. The permittee shall report semi-annually the **Specific Monitoring Requirements**.
 - b. Any exceedances over the opacity or particulate emission limits as stated in this permit shall be reported to the Division as specified in Section F.8.

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

- c. Following an opacity exceedances, the permittee shall continue to submit, for a period of 2 months, the weekly visible emission readings and the monthly average process weight rates of this emission point, within 30 days of the end of each month.
 - d. The company shall certify to the Division, annually, whether a weekly visible emission survey was conducted for each emission point, and whether the emission point was in compliance with the applicable opacity requirements.
7. **Specific Control Equipment Operating Conditions:** See Section E

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Coil Coating – Group 2

68 (CC-9) Prime and Finish Coater Line

Description: The coater line has a maximum processing rate of 660 gallons of VOC-containing paint and thinners input per hour.

Control Equipment: Thermal Oxidizer (Incinerator)

Construction Commenced: December 31, 1991

APPLICABLE REGULATIONS:

401 KAR 60:005 40 CFR Part 60 standards of performance for new stationary sources incorporating by reference 40 CFR 60, Subpart TT, Standards of performance for metal coil surface coating.

401 KAR 63:002 40 C.F.R. Part 63 National emission standards for hazardous air pollutants incorporating by reference) 40 C.F.R. 63, Subpart SSSS, "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil" ---Compliance by June, 2005

1. **Operating Limitations:** Pursuant to Subpart SSSS, on and after June 10, 2005 the permittee shall comply with the appropriate operating limits in 63.5121.

2. **Emission Limitations:**

- a. Pursuant to 40 CFR 60 Subpart TT, until June 10, 2005, the permittee shall not cause to be discharged into the atmosphere more than 10 percent of the VOC's applied for each calendar month.
- b. Pursuant to Subpart SSSS, on and after June 10, 2005, organic HAP emissions shall not be emitted in amounts greater than those specified in 63.5120

Compliance Demonstrations: If the overall reduction efficiency (R, see **3. Testing Requirements** below) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows:

- 1) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using the following equations:
 - 1a) Calculate the mass of VOC's used ($M_o + M_d$) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where L_c is the volume of each coating consumed, as received (liters), D_c is the density of each coating, as received (kg/l), W_o is the proportions of VOC's in each coating, as received (fraction by weight) and L_d is the volume of each VOC-solvent added to coatings

- 1b) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^n V_{si} L_{ci}$$

Where L_s is the volume of coating solids consumed (liters), V_s is the proportion of solids in each coating, as received (fraction by volume), L_c is the volume of each coating consumed, as received (liters) and n is the number of different coatings used during the calendar month.

- 1c) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s}$$

- 2) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N = G (1 - R)$$

- 3) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

3. Testing Requirements:

- a. Pursuant to 40 CFR 60 Subpart TT, until June 10, 2005 the permittee shall use the following procedures for determining the overall reduction efficiency (R) for the capture system and control device:
- i. Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$F = \frac{\sum_{i=1}^l C_{bi} Q_{bi}}{\sum_{i=1}^l C_{bi} Q_{bi} + \sum_{i=1}^p C_{fi} Q_{fi}}$$

Where C_b is the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon), Q_b is the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour), C_f is the VOC concentration in each gas stream emitted directly to the atmosphere (parts per million by volume, as carbon), Q_f is the volumetric flow rate of each gas stream emitted directly to the atmosphere (dry standard cubic meters per hour), l is number of gas streams entering the control device and p is number of gas streams emitted directly to the atmosphere.

- ii. Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^n Q_{bi} C_{bi} - \sum_{i=1}^m Q_{ai} C_{ai}}{\sum_{i=1}^n Q_{bi} C_{bi}}$$

Where Q_a is the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour), C_a is the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon), n is the number of gas streams entering the control device and m is the number of gas streams leaving the control device and entering the atmosphere

- iii. Determine overall reduction efficiency (R) using the following equation:

$$R = EF$$

After initial compliance, the permittee may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed.

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The permittee shall demonstrate compliance with 40 CFR 63 Subpart SSSS on or before June 10, 2005.

4. Specific Monitoring Requirements:

- a. The permittee shall maintain the temperature monitor on the thermal incinerator with an accuracy of ± 2.5 degrees Celsius or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater.
- b. Pursuant to 40 CFR 63 Subpart SSSS, on and after June 10, 2005, the permittee shall monitor all necessary equipment and processes in accordance with 63.5150.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60 Subpart TT, until June 10, 2005, records of all data and calculations used to determine monthly VOC emissions and daily incinerator combustion temperatures from each affected facility shall be maintained at the source, for a period of at least 2 years.
- b. Pursuant to 40 CFR 60 Subpart TT, until June 10, 2005, the permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28 degrees Celsius (50 degrees Fahrenheit) below the temperature at which compliance was demonstrated during the most recent measurement of incinerator efficiency. The records shall identify each such occurrence and its duration.
- c. Pursuant to 40 CFR 63 Subpart SSSS, on and after June 10, 2005, the permittee shall maintain records in accordance with 63.5190.

6. Specific Reporting Requirements:

- a. The permittee shall submit a written report to the Division every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the specified emissions limitation and the frequency of the incinerator temperature dropping more than 28 degrees Celsius (50 degrees Fahrenheit) below temperature. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Division semiannually.
- b. Pursuant to 40 CFR 63 Subpart SSSS, on and after June 10, 2005, the permittee shall report in accordance with 63.5180

7. Specific Control Equipment Operating Conditions: See Section E

SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Bare Coil Finishing

83 (BCF-1)	652 Tension Leveler Fugitives
84 (BCF-2)	653 Tension Leveler Fugitives
98 (BCF-3)	661 Pressure Leveler Fugitives
104 (BCF-4)	651 Tension Leveler Fugitives

APPLICABLE REGULATIONS:

401 KAR 50:055 General compliance requirements

401 KAR 63:010 Fugitive emissions.

1. Operating Limitations:

- i. Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.
- ii. VOCs emission from 104 (BCF-4): 651 Tension Leveler Fugitives shall not exceed 30 tpy (self-imposed Synthetic Minor limit).

Compliance Demonstration:

Compliance with annual limits shall be calculated as a rolling twelve month total. The rolling 12 month total shall be calculated at the beginning of each month for the previous twelve months.

VOCs Emission (Tons/Month) = [Monthly Usage of Mineral Spirits (gallons/month) x Density of Mineral Spirits (lbs/gallon) x Emission Factor of VOCs (lb/lb)*] / 2000 (lbs/ton)

*The VOCs emission factor for 104 (BCF-4) shall be 0.73 lbs per lb Mineral Spirits used. A change to this emission factor may be requested by Commonwealth Aluminum Lewisport, based on material balance or other demonstration to the Division. Any emission factor change must be approved by the Division prior to use. Records of any such change in the emission factor used shall be maintained at the source.

2. Emission Limitations: For 104 (BCF-4): 651 Tension Leveler Fugitives, see Operating Limitations on VOCs emission limitations.
3. Testing Requirements: None
4. Specific Monitoring Requirements:

**SECTION B – AFFECTED FACILITIES, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS (CONTINUED)**

- i. The permittee shall monitor the amount of mineral spirits used and the hours of operation for 104 (BCF-4) monthly.
- ii. The permittee shall monitor the usage of mineral spirits and hours of operation for 83 (BCF-1), 84 (BCF-2), and 98 (BCF-3) annually.

5. Specific Recordkeeping Requirements:

- i. Records shall be maintained of the amount of mineral spirits used and the hours of operation for 104 (BCF-4) monthly.
- ii. Records shall be maintained of the amount of mineral spirits used and the hours of operation for 83 (BCF-1), 84 (BCF-2), and 98 (BCF-3) annually.

6. Specific Reporting Requirements: The permittee shall report semi-annually the Specific Monitoring Requirements.

7. Specific Control Equipment Operating Conditions: None

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Description	Generally Applicable Regulation
1. Paintroll grinder	401 KAR 61:020
2. Welding operations	401 KAR 59:010
3. Wet paintroll grinder	401 KAR 63:010
4. 2000 gal above ground gasoline storage tank	None
5. 4000 gal above ground diesel storage tank	None
6. Buffing, sanding, and grinding operation	401 KAR 61:020
7. Salt bath annealing operation	401 KAR 61:020
8. 550 gallon storage tank	NA
9. 4 Modine hanging heaters	NA
10. 2 Hot water heaters	NA
11. 30 HP Boiler	NA
12. 1 Heat treat furnace (0.6 MMBTU/hr)	NA
13. 1 Hastings air make up unit, on roof	NA
14. 2 Trane hanging heaters (bld. #1)	NA
15. 2 Trane heaters on roof (15 tons each)	NA
16. 15 Infrared heaters	NA
17. Aqueous cleaner	NA
18. Aging oven	NA
19. Heat treat furnace	NA
20. NCH Cast Pit #1 Vent Stack	NA
21. NCH Cast Pit #2 Vent Stack	NA
22. NCH & SCH Sow Drying Fire Racks	None
23. 0.8 mmBTU/hr drying oven	None
24. Casting pit # 1, 2, & 3 SCH	401 KAR 61:020

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)

25. Casting Pit #4 SCH	401 KAR 61:020
26. Casting Pit #5 SCH	401 KAR 61:020
27. 2 Calcium Hydroxide Storage Silos	401 KAR 63:010
28. 588 Cold Mill Clean Norpar 15 underground storage tank	None
29. 588 Cold Mill Clean Norpar 15 underground storage tank	None
30. 589 Cold Mill Clean Norpar 15 underground storage tank	None
31. 589 Cold Mill Clean Norpar 15 underground storage tank	None
32. 590 Cold Mill Clean Norpar 15 underground storage tank	None
33. 590 Cold Mill Clean Norpar 15 underground storage tank	None
34. 2 mineral spirits storage tanks	None
35. Waste mineral spirits storage tanks	None
36. Numerous gas fired space heaters	None
37. 1000 gal above ground diesel fuel tank	None
38. 300 gal above ground kerosene tank	None

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

**SECTION F – MONITORING, RECORDKEEPING, AND REPORTING
REQUIREMENTS (CONTINUED)**

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Owensboro Regional Office
3032 Alvey Park Drive W., Suite 700
Owensboro, KY 42303-2191

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens.[Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
 16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
- (b) Permit Expiration and Reapplication Requirements
1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
 2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].
- (c) Permit Revisions
1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
 2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
A3 (NCH-10) W-2 Melt Furnace Burner Section (Two Regenerative-Burners to replace existing two HiRam Burners)

104 (BCF-4) 651 Tension Leveler Fugitives

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points A3 (NCH-10) and 104 (BCF-4) in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee

SECTION G - GENERAL PROVISIONS (CONTINUED)

shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements.

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

SECTION G - GENERAL PROVISIONS (CONTINUED)

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H – ALTERNATE OPERATION SCENARIOS

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

None

SECTION I – COMPLIANCE SCHEDULE

None